CLAIMS

1. A disk drive comprising a disk holder that has a plurality of disk holding members that individually hold a plurality of disks, a drive unit that plays back a desired disk, and drive movement means for moving the drive unit into a space that is formed by the rise and fall of the disk holding members,

wherein the opening amount of the disk holder by the rise and fall of the disk holding member is fixed.

2. The disk drive according to claim 1, wherein the height of disk insertion into the disk holder is on the upper side between the highest disk holding member and the lowest disk holding member when the disk holder is open.

3. The disk drive according to claim 2, wherein a disk selector that holds a disk holding member holding a desired disk at the disk insertion height when a disk is inserted into the disk holder, and retracts the disk holding member holding the desired disk below the disk during disk playback is provided.

4. The disk drive according to claim 3, wherein the drive unit and the disk selector are provided in a drive chassis unit; and the drive chassis unit is provided so as to be capable of rising and falling with respect to the disk holder.

5. The disk drive according to claim 4, wherein the drive chassis unit is provided with disk insertion/ejection means that inserts and ejects the disk into and from the disk holder.

6. The disk drive according to any one of claims 3 to 5, wherein disk grasping means for grasping the desired disk when the disk holding member is caused to rise and fall by the disk selector is provided.

7. A disk feeding device comprising a disk storage portion that stores disks and a disk insertion/ejection portion that inserts and ejects disks to and from the disk storage portion,

wherein the disk storage portion is provided such that the center of the disk stored in the disk storage portion is in a position approaching either side of the two edges of the disk when viewed from the front of the disk insertion/ejection portion with respect to the center of the disk passing the disk insertion/ejection portion; and

a disk guide that guides the movement of the disk between the disk insertion/ejection portion and the disk storage portion is provided.

8. The disk feeding device according to claim 7, wherein the disk insertion/ejection portion comprises a loading roller

and a drive portion that causes the loading roller to turn;

the drive portion is provided at either of the two ends of the loading roller; and

the center of the disk in the disk storage portion approaches the side where the drive portion is provided.

9. The disk feeding device according to claim 7 or 8, wherein the disk guide comprises an oblique face that changes the direction of movement of the disk by contacting the outer edge of the disk.

10. A disk drive comprising the disk feeding device according to any one of claims 7 to 9,

wherein the disk storage portion is a disk holder provided so as to be capable of storing a plurality of disks and of being divided,

the disk drive comprises a drive unit that is provided so as to be capable of moving between the divided disk holders and which plays back a desired disk, and

the drive unit is provided on the opposite side from the side approached by the center of the disk in the disk holder, in the vicinity of the disk holder.

11. The disk drive according to claim 10, wherein the drive unit comprises:

a turntable on which a disk is mounted; and

a disk clamping mechanism that sandwiches the disk between the disk clamping mechanism and the turntable during disk playback and allows the disk to pass to and from the turntable during disk insertion and ejection.

12. The disk drive according to claim 10 or 11, wherein a pair of disk selectors for dividing the disk holder are provided on one pair of side portions of the disk holder that are orthogonal to each other; and

the drive unit and the disk insertion/ejection portion are provided respectively on the other pair of side portions of the disk holder that are orthogonal to each other.

13. A disk loading mechanism comprising a disk insertion/ejection portion that inserts and ejects a disk into and from a disk drive that is capable of storing disks thereinside,

wherein the disk insertion/ejection portion is provided so as to be capable of moving in the direction of contact with and separation from a disk in the disk drive.

14. The disk loading mechanism according to claim 13, wherein the drive portion that drives the disk insertion/ejection portion is fixed to the disk drive; and

the disk insertion/ejection portion is provided so

as to be capable of connecting to and disconnecting from the drive portion in accordance with the movement of the disk insertion/ejection portion.

15. The disk loading mechanism according to claim 13 or 14, wherein the disk insertion/ejection portion is a loading roller.

16. The disk loading mechanism according to claim 15, wherein the loading roller is provided with a roller gear;

the drive portion comprises a motor and a gear mechanism that is operated by the motor; and

the gear mechanism is provided so as to be capable of engaging with and disengaging from the roller gear in accordance with the movement of the loading roller.

17. A disk drive comprising a disk holder that stores disks thereinside and a drive unit for playing back a desired disk, comprising:

the disk loading mechanism according to any one of claims 13 to 16.

18. The disk drive according to claim 17, wherein the disk holder has a plurality of disk holding members that individually hold a plurality of disks, the disk drive comprising:

a disk selector that forms a space above and below a desired disk by causing the disk holding members to rise and fall;

drive moving means that causes the drive unit to move into the space formed by the rise and fall of the disk holding members; and

disk insertion/ejection portion moving means which, when a space is formed above and below the desired disk by the disk selector, allows the disk insertion/ejection portion to move in the direction of contact with the desired disk and which, when the desired disk is played back by the drive unit, allows the disk insertion/ejection portion to move in a direction away from the desired disk.